

# **Public Health Outreach Project Description**

Title: HiPHIVE: Hawaii Public Health Information Virtual Emporium

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Organization: Hawaii Medical Library, Inc., University of Hawaii School of Public Health

Date: 1998-2000

## **Objectives:**

1. Conduct a needs assessment
2. Develop a local public health Internet site
3. Develop a training program for key public health professionals to use related Internet resources
4. Explore the use of a portable LAN for hands-on training
5. Evaluate the results of training and use of the HiPHIVE website

## **Target Audience:**

Public health professionals throughout the state of Hawaii were the target audience. The Hawaii Department of Health employs the largest number of public health professional within the state although we also reached out to members of the Hawaii Public Health Association, University of Hawaii School of Public Health Alumni and students as well as private practitioners.

## **Needs assessment (methodology and results):**

A needs assessment survey was developed and mailed to members of the Hawaii Public Health Association and distributed to every department of the Hawaii Department of Health across the state. A copy is posted at <http://www.nlm.nih.gov/partners/hineeds.pdf>. The goals of the needs assessment was to determine what kinds of training needs existed; to develop a basis for organizing and to develop a local public health website with input from potential users; and to create awareness and interest in the project among Hawaii public health professionals. General questions around the following subject areas were asked: the use of print materials, access and use of computers and the internet, open-ended questions for people who were already using the internet about what kind of information and links they would find useful, their favorite websites, search engines, etc.

A total of 96 surveys were returned. The results basically confirmed the diversity of any public health workforce with a wide variety of subject areas of interest including administration, environmental health, mental health, nutrition, public health nursing, and health education; 76% of the respondents were from Oahu, the most populous island in Hawaii; 60% were aged 35-54 and 24% aged 55 and over. An overwhelming 79% indicated that their preference was for hands-on training. Seventy-six per cent were already using the Internet but most also expressed frustration with not being able to find quality information effectively and efficiently. In the end the needs assessment guided the development of the

template of the site, broad subject areas to be included and specific topics to cover as well as the training.

### **Intervention:**

Four different two hour training sessions were developed, each one using the HiPHIVE website as a basis for the session. We called our sessions Public Health Internet Resources for the Neophyte, Hands-on HiPHIVE, Beyond Yahoo, and HiPHIVE Virtual Tour. The first two programs were designed for those with limited computer/Internet skills and contained substantial hands-on assistance. The remaining two sessions were largely demonstrations and designed for those already comfortable using the Internet. However, individual sessions were adapted based on the interests of the participants. Using the registration forms as a basis, Berglund & Tanji were especially attentive to showcasing unique Internet resources useful for each participant.

In all a total of 16 sessions were conducted: 8 on Oahu, 2 on Kauai, 2 on Maui, and 4 on the island of Hawaii. The smallest, and the first, had only 3 attendees while the largest on Kauai had over 30 eager participants. The total number of trainees who participated in all sessions was 150. Of these, 49 attended two sessions; thus there were a total of 101 unique individuals who were trained during the grant period.

Many public health professionals in our target group had some access to the Internet but had no training for effectively searching for job-related information and also expressed a desire for hands-on training in the needs assessment. In order to provide hands-on training opportunities to the individuals who needed it most, we utilized a 4 station portable LAN. This arrangement allowed us to take our sessions throughout the state with participants providing nothing more than a room with tables & chairs, electrical power and a single telephone line. The LAN consisted of 4 Winbook laptop computers, a 3COM OfficeConnect 10 station LAN modem, network hub and assorted electrical and network cables. The LAN was transported in two compact rolling suitcases small enough to be used as carry on luggage. Because the LAN was capable of connecting to up to 10 computers, we were able to connect on site computers to our LAN thus increasing the number of participants who could benefit from the hands-on practice without bringing more equipment than we could carry.

### **Training and other materials developed:**

In addition to the HiPHIVE website, the basic training tool, we developed a variety of registration and informational items which were posted to the website. Our goal was to have most of our materials on the web and reduce the need for carrying handouts to each session. Examples of our announcement/registration

form can be found at <http://hml.org/hiphive/konareg.PDF> and <http://hml.org/hiphive/kauai2.PDF>.

The LAN consisted of many pieces that needed to be connected quickly and correctly for it to work properly. After much experimentation, a packing/setup list for the portable LAN was developed. This should be especially useful to those that try to incorporate a portable LAN in a future project.

### **Website (developed as part of project and how maintained):**

The HiPHIVE home page is located at <http://hml.org/hiphive/>.

The home page acts as a navigation point directing users to government agencies (<http://hml.org/hiphive/agencies.html>); relevant legislation, codes and rules (<http://hml.org/hiphive/rules.html>); health policy and practice guidelines (<http://hml.org/hiphive/practice.html>); grant opportunities (<http://hml.org/hiphive/grants.html>); public health metasites (<http://hml.org/hiphive/meta.html>); news sites (<http://hml.org/hiphive/news.html>); training and evaluation (<http://hml.org/hiphive/training.html>); statistical sources (<http://hml.org/hiphive/stats.html>); health education and prevention (<http://hml.org/hiphive/healthed.html>); diseases and epidemiology (<http://hml.org/hiphive/epi.html>); information about various population groups (<http://hml.org/hiphive/groups.html>); environmental health (<http://hml.org/hiphive/environ.html>); mental health and substance abuse (<http://hml.org/hiphive/mental.html>); nutrition (<http://hml.org/hiphive/nutrition.html>); a search engine gateway (<http://hml.org/hiphive/phsearch.html>); the Hawaii Department of Health (<http://www.state.hi.us/doh/>); a collection of relevant databases (<http://hml.org/hiphive/databases.html>); local and national library links (<http://hml.org/hiphive/libraries.html>); journals and newsletters (<http://hml.org/hiphive/journals.html>).

### **Evaluation (methodology and results):**

Each training was evaluated at the conclusion of the session. A very simple form was used with one question that rated whether the session met, exceeded or did not meet the trainee's expectations as well as a series of open-ended questions. A total of 144 on-site evaluations were collected and analyzed; 50% of all attendees indicated that their expectations for the training sessions had been exceeded; 46% met, and 1% not met. The answers to the open-ended questions indicate that most attendees found the links that had been gathered on the HiPHIVE web pages very helpful and gave them a good starting point for their search for information. Many expressed their pleasure at being able to search more efficiently for information they required for work.

One of the goals of the project was to determine if HiPHIVE training intervention changed the searching behavior of the trainees (practicing public health professionals). A survey was developed and administered on-site prior to training with an identical follow-up survey mailed 1-3 months following the training. The survey was administered to all training participants once. (Some

trainees took two different training sessions) All surveyed were asked to address a blank envelope to themselves which was attached to the original survey. The post-training surveys were coded so that a statistical analysis (paired T-tests) could be run to determine if there was a significant difference in the reported behavior of each subject post-training. Sixty-one post-training surveys were received for a 60% return rate, based on 101 pre-training surveys. Questions re frequency of searching specific sites and attitudes regarding searching the Internet were asked. Modest but significant changes were detected in the frequency with which they searched the HiPHIVE web site, MEDLINE, and MedlinePlus. There were also small but significant changes in their attitudes toward searching the Internet for information. Respondents felt they knew where to begin searching and knew where to find high quality public health information on the Internet.

As anticipated, use of the HiPHIVE website increased dramatically as the training sessions progressed and the site was linked from the Hawaii DOH website. Website statistics are collected using the WebTrends software. During the first three quarters of its existence, (January - September, 2000), the website averaged over 200 individual sessions per day with peak use directly following training sessions. Even though the training portion of the grant was completed last June, the website continues to show steady use.

### **Poster Sessions/Exhibits/Presentations/Publications:**

Presentations on the HiPHIVE project were given at the Hawaii Library Association annual conference, November 13, 1999, the Hawaiian-Pacific Chapter of the Special Library's continuing education program, April 8, 2000 and the Internet Librarian 2000 conference, November 7, 2000. The presentations in Hawaii helped promote the training sessions and HiPHIVE website while the Internet Librarian 2000 presentation sought to give a national showcase to the success of the project.

### **Partnerships:**

The key partnership in this proposal was between the Hawaii Medical Library (HML) and the School of Public Health at the University of Hawaii at Manoa (UHSPH). HML is the Resource Library in the state for the Pacific Southwest Region National Network of Libraries of Medicine. HML subcontracted portions of the grant to UHSPH. UHSPH has extensive contacts within the public health community as well as experience with public health information needs and training. The work of this project was a cooperative effort between Sharon Berglund of HML and Virginia Tanji of UHSPH.

The State of Hawaii is uniquely organized in that there is a state level department of health that is responsible for the basic public health functions for the entire state of Hawaii. The Department of Health (DOH) is one of the State's largest Departments. The Department was involved in this grant from its inception.

### **Marketing:**

Marketing efforts included advertising in the Hawaii Medical Library Newsletter, the Hawaii Public Health Association Newsletter and on the HML and UHSPH websites. The Hawaii Department of Health sent flyers throughout the state and promoted the website and training in numerous newsletters and email announcements initiated via the Department of Health. Berglund and Tanji individually contacted working professionals who were interested in the training.

### **Administrative issues:**

The project was jointly managed by Berglund and Tanji, with Breinich and the administrative staff at Hawaii Medical Library providing assistance with the fiscal portions. For the most part this worked well. Both Hawaii Medical Library and the School of Public Health recognized the value of the work of the grant; however, working on the grant was in addition to the responsibilities of Berglund's and Tanji's respective positions.

### **Challenges Faced:**

Developing the needs assessment tool and the pre-training/post-training survey took much longer than anticipated. Even then, as the analysis was completed it was clear that despite some pilot-testing, other questions could have been asked.

Another problem we faced was the size of the facility at Kealahou. We realized we needed to be explicit about our room size requirements after several registrants were turned away due to lack of space. Also there were some minor problems in configuring the computers, contacting the Internet provider, etc. which could have become major obstacles had Berglund not had a lot of technical expertise with hardware and software preventing the problems from escalating into major ones.

Never schedule training sessions for non-working days. In spite of assurances that people are interested in continuing education and that Saturday sessions will be welcomed by people who cannot get away from their work, this was not true.

### **Were Project Objectives Met?**

The objectives were met. We developed and administered a needs assessment, the results of which provided the basis for developing and organizing the HiPHIVE website. Our training program reached our target audience and then some. We were able to work with public health professionals on 4 of the 5 main Hawaiian islands. The laptop LAN proved a very successful method of providing hands-on training where computer facilities are limited or non-existent. The laptop LAN was so successful that its use is being replicated by a consumer health grant within Hawaii and by PSRML for their outreach program. All participants of the training sessions were asked to complete an evaluation of the session they attended as well as a follow up survey on their continued use of the HiPHIVE website and value of the training.

**Sustainability:**

The maintenance of the site when the project ends becomes a volunteer effort of Berglund and Tanji. Berglund no longer works in the state nor in health sciences libraries and Tanji has new responsibilities with the John A. Burns School of Medicine at the University of Hawaii at Manoa. Hawaii Medical Library, Inc. currently hosts the site.

**Anecdotes or Other Observations:**

The Hawaii Department of Health (DOH) now links to HiPHIVE from both their Internet and Intranet sites and actively promotes the site to all DOH employees. DOH has been very supportive of our efforts and continues to alert us to potential additions for the website.

Berglund and Tanji promoted PSRML/NLM funding sources for Internet access upgrades. Internet access was especially in short supply on Kauai. Follow-up letters with grant information were sent to participants in Lihue and on the Big Island.

The overwhelming numbers experienced at both Kauai and Kealahou can be attributed partly to the fact that local opportunities in rural settings for continuing education are severely limited. The participants were very appreciative of the fact training was brought to them. In addition, while many had been using the Internet, the overwhelming response to the HiPHIVE website was that reliable and useful sources of information had been linked. It also is very apparent that even though the site address had been announced and promoted, an actual "tour" of the content of the site and demonstrations of how the users might find information is what is necessary for people to use the site.

There continues to be a need for more training but this is difficult to support without additional resources. Requests for additional sessions were noted in the evaluations as well as occasional email messages and telephone inquiries. In fact, requests for training were received from places as remote as Fiji and the Federated States of Micronesia.